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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/500,609	07/01/2004	Koichi Shinkai	Q81987	4319
65565	7590	03/20/2007	EXAMINER	
SUGHRUE-265550			RIVAS, SALVADOR E	
2100 PENNSYLVANIA AVE. NW			ART UNIT	PAPER NUMBER
WASHINGTON, DC 20037-3213			2609	
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE		
3 MONTHS	03/20/2007	PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	10/500,609	SHINKAI, KOICHI
	Examiner	Art Unit
	Salvador E. Rivas	2609

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) Responsive to communication(s) filed on 01 July 2004.
- 2a) This action is FINAL.                            2b) This action is non-final.
- 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) Claim(s) 1 and 2 is/are pending in the application.
  - 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) Claim(s) \_\_\_\_\_ is/are allowed.
- 6) Claim(s) 1-2 is/are rejected.
- 7) Claim(s) \_\_\_\_\_ is/are objected to.
- 8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) The specification is objected to by the Examiner.
- 10) The drawing(s) filed on 01 July 2004 is/are: a) accepted or b) objected to by the Examiner.
 

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) All    b) Some \* c) None of:
    1. Certified copies of the priority documents have been received.
    2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date <u>07/01/2004 and 03/10/2006</u> .	5) <input type="checkbox"/> Notice of Informal Patent Application
	6) <input type="checkbox"/> Other: _____

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statements submitted on July 1, 2004 and March 10, 2006 have been considered by the Examiner and made of record in the application file.

### ***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by **Lang et al.** (U.S. Patent # 4,903,280).

Consider **claim 1**, Lang et al. clearly shows and discloses a half-duplex communication control method in which a first device and a second device connected to this first device by two signal lines are had and each of the two devices notifies the opponent device of a state as to whether the self device is communicable and half-duplex communication in one-to-one correspondence is conducted (Column 1 Lines 43-55, Column 5 Lines 42-50, and Column 6 Lines 3-10), characterized by being configured so that the first device outputs a sending request output for providing notification of a state of a communication request from the first device to the second device as a sending request signal using an open collector buffer (Column 2 Lines 11-32, Column 6 Lines 35-41, Column 6 Lines 52-62 Column 8 53-61, and Column 9 Lines 15-29) and also turns back its sending request output inside the first device to check a

communicable state as a sending request input inside the first device (Column 2 Lines 65-68 and Column 3 Lines 1-19)\_and also in the case that the second device is receivable with respect to the sending request signal sent from the first device, the second device outputs a sending permission output for providing notification of a communicable state from the second device to the first device as a sending permission signal using an open collector buffer (Column 2 Lines 11-32, Column 6 Lines 35-41,Column 6 Lines 52-62, Column 8 53-61, and Column 9 Lines 15-29) and also turns back its sending permission output inside the second device to check a communicable state as a sending permission input inside the second device (Column 2 Lines 65-68 and Column 3 Lines 1-19).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Lang et al. (U.S. Patent # 4,903,280)** in view of **Terry et al. (U.S. Patent Application Publication # 2003/0002519 A1)**.

Consider **claim 2**, and as applied to **claim 1 above**, Lang et al. clearly shows and discloses in his control system to include a microprocessor (Column 5 Lines 51-54).

However, Lang et al. fails to detailed the characteristics of said microprocessor with regard to how time elapses before outputting another sending request output in the case of outputting sending request outputs simultaneously from two devices, time respectively varying with respect to the two devices is randomly determined by a program of a microcomputer.

In the same field of endeavor, **Terry et al.** show cases a DSP in his system that is programmed to arbitrate the transmission of data packets depending on clock rate imposed by control unit 72 ([0060] and [0082]-[0083]).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention was made to incorporate a programmed DSP to a control unit as shown by **Terry et al.** in the control method of Lang et al. for the purpose of controlling data packets via two signal lines in a half-duplex communication.

***Conclusion***

4. Any response to this Office Action should be **faxed to (571) 273-8300 or mailed to:**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**Hand-delivered responses** should be brought to

Customer Service Window  
Randolph Building  
401 Dulany Street  
Alexandria, VA 22314

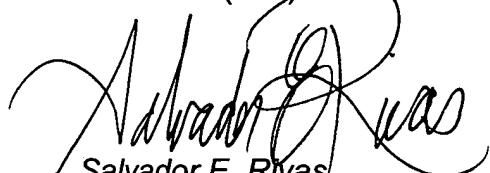
Any inquiry concerning this communication or early communications from the Examiner should be directed to Salvador E. Rivas whose telephone number is (571) 270-1784. The examiner can normally be reached on Monday-Friday from 7:30AM to 5:00PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's supervisor, Rafael Perez-Gutierrez can be reached on (571) 272- 7915. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist/customer service whose telephone number is (571) 272-2600.



Salvador E. Rivas  
S.E.R./ser

March 16, 2007



RAFAEL PEREZ-GUTIERREZ  
SUPERVISORY PATENT EXAMINER

3/16/07